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AUTHOR Galluzzo, Gary R.
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ABSTRACT

This study examined whether selected protocol materials in classroom management, used in inservice courses, would bring about long-term significant changes in teachers' classroom performance. Fifteen teachers participated in the study by taking an inservice course on classroom management and discipline. Two modules of classroom management behaviors were taught. The first module consisted of group alerting behaviors, including questioning techniques, recitation strategy, and alerting non-performers that they may be called upon to recite; the second module demonstrated teacher behaviors that encourage "withitness" in the students, including desisting from off-task behavior, describing desirable behavior, suggesting alternate behavior, and praising non-deviant behavior. For each module, both positive and negative behaviors were introduced to the inservice teachers, and, after completing the overview, the subjects practiced identifying the specific behaviors on transcripts of actual classroom interaction. The group observed a film of a class in which the teacher demonstrated the behaviors in the module. Teachers were asked to identify and label the behaviors as they were used. Following the film, there was a discussion of the behaviors. Teachers were observed in their classrooms immediately following completion of the modules, and two observations were made three and six weeks later. Findings indicated that, while the teachers used newly learned behaviors immediately following the training sessions, long-term changes in behaviors were difficult to determine. (JD)

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CHANGING TEACHER PERFORMANCE WITH PROTOCOLS

Gary R. Galluzzo
Glassboro State College

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

The results reported in this paper are the product of a secondary analysis of another study. The prupose of the original study was to determine the differential effectiveness of the Utah State University protocols in classroom management as they relate to teacher Conceptual Level (CL) (Hunt, 1966). CL is defined as a personality construct which describes a person's cognitive complexity and interpersonal maturity (Harvey, Hunt, and Schroder, 1961). Higher CL persons are characterized as abstract thinkers who are capable of tolerating ambiguity and lower CL persons are characterized as concrete thinkers. The first set of hypotheses tested was that there would be no difference between the higher and lower CL teachers in their ability to transfer to their classrooms and maintain a relatively simple set of behaviors taught in an inservice activity. A second set of hypotheses tested that there would be differences between the higher and lower CL teachers in their ability to transfer and maintain the relatively more complex behaviors, in favor of the higher CL teachers. There were no significant differences between the two groups of teachers on all ten behaviors. However, there were differences in the frequencies at which the teachers demonstrated these behaviors over the eight weeks of classroom observations. These data are reported here.

PURPOSE

The prupose of this study was to determine whether the Utah State University (USU) protocol materials in classroom management would bring about long-term significant changes in the teaching performance of inservice teachers. Two modules of classroom management behaviors from the USU protocol package were used in this study. The protocols were comprised of seven specific classroom management behaviors which were identified by Kounin and his colleagues (1970) to correlate with the lower off-task student behavior in

recitation and seatwork settings (Figure 1). In other words, the frequency of use of these teacher behaviors were found to correlate with student task involvement.

Figure 1

The Behaviors in the Protocol Materials

Group Alerting:

1) Questioning Technique - The teacher frames the question and then pauses before calling on the reciter (QT+), rather than naming the reciter and then giving the question (QT-).

2) Recitation Strategy - The teacher calls on the reciters at random (RS+), rather than calling on them in a predetermined order (RS-).

3) Alerting Cue - The teacher alerts the non-performers that they may be called upon to participate (AC).

Withitness:

1) Desist - The teacher tells student(s) to stop deviant or off-task behavior. A Desist must be directed at the student(s) who initiated the deviant behavior. It must be timely and on target (D+). If not, it is labelled a negative desist (D-).

2) Describe Desirable Behavior - The teacher or deviant student describes the desirable behavior which should be taking place (DDB).

3) Suggest Alternate Behavior - The teacher points out to the student(s) another behavior which removes the student from the distraction (SAB).

4) Concurrent Praise - The teacher praises non-deviant behavior of other students while aligning deviant students (CP).

This study has built on the research conducted, thus far, on inservice teacher education. Reports have shown that it is quite possible to train teachers in certain new behaviors or skills (Borg, Langer, and Wilson, 1975); Borg, 1977; Borg and Ascione, 1979; McDonald and Davis, 1978; and Wald, 1972).

In a study of twenty elementary school teachers, Borg, Langer, and Wilson (1975) found that the experimental group teachers did demonstrate all thirteen behaviors, but the differences in frequency of use between the control and experimental group were small and insignificant.

Using the same protocols, Borg (1977) trained twenty-eight randomly assigned elementary school teachers to training in classroom management or training teachers to improve student self-concept. His results indicate that the teachers trained in the classroom management materials had increased in their frequency of use on seven of the thirteen behaviors in his study. There were significant differences in favor of the teachers trained in the classroom management behaviors over those in the control group (p .05).

In a related study, Borg and Ascione (1979) obtained results similar to those of Borg. They trained teachers in the classroom management behaviors. They found that as a group, the teachers could demonstrate seven of the thirteen behaviors immediately after the training (p .05). There were no long-term post-training observations conducted.

McDonald and Davis (1978) also obtained mixed results in a study of inservice education. They conducted a training program designed to train eighteen teachers in a variety of skills of teaching, including but not limited to managing, diagnosis, and instructional style. Their training showed an immediate effect. For example, the teachers could demonstrate moving throughout the room as a management technique immediately after training.

As their year-long program continued, they observed that the teachers were using the most recently taught skills at the expense of others they previously learned. The researchers found that the teachers tended to use the more recent management behaviors at the expense of the diagnostic or instructional roles taught earlier, leading the researchers to report that the complementary use of the skills was far from easy.

This literature review has attempted to outline briefly those studies which provide the foundation for this study. The transfer of skills or behaviors from the inservice setting to the classroom is not a certain one. All of the studies reported here note that the objectives of the program were achieved. However, each notes that the teachers had difficulty in using or maintaining the behaviors in their classrooms. None of these training studies examined post-training teacher performance over an extended period of time. McDonald and Davis found some training does not last and the integration of new behaviors is awkward and irregular. As a group, the teachers tended to drop the new behaviors after the training ended or when another training experience began.

METHOD

Fifteen subjects volunteered to take a course for one graduate hour of credit in an inservice course entitled "Classroom Management and Discipline" offered through Syracuse University's three Teaching Centers. The class met over four consecutive weeks for two hours at a time. Each module took four clock hours to complete. The remaining time required to fulfill one graduate credit hour was allocated to the observations and feedback held in each teacher's classroom. The schedule for observations appears in Figure 2.

During the first session, the group alerting behaviors were introduced. In all, there are five group alerting behaviors in the module: three are

observable, positive, and verbal, teacher behaviors and two are observable, negative, and verbal, teacher behaviors. It is the purpose of the training to increase the teacher's use of the positive behaviors and to decrease the teacher's use of the negative behaviors. The group alerting behaviors were introduced to the teachers by the researcher and operational definitions were developed by using the materials. After completing the overview, the subjects practiced identifying the specific behaviors on transcripts of actual classroom interaction. The second session was devoted to reviewing the behaviors in the group alerting module and observing a film of a class in which the teacher demonstrates the behaviors under study. The protocol film serves two purposes. First, the teachers must identify and label the behaviors as they are used; and second, the film provides the teachers with a model of performance for using the behaviors in their classrooms. The film was then followed by discussion of the behaviors and a final coding of another transcript. This same procedure was used for the withitness module. The withitness module is also comprised of five behaviors: four positive, observable, and verbal, teacher behaviors and one negative, observable, and verbal teacher behavior. Again, the purpose of the training is to increase the teacher's use of the positive behaviors as they correlate with lower student off-task behavior, and to decrease the use of the negative management teacher behavior.

OBSERVATIONS

Immediately following the completion of each module, the subjects were observed in their classrooms by the researcher. For the first post-training observation, the teachers were instructed to demonstrate the behaviors as often as possible so that learning of them could be determined.

Figure 2

Observation Schedule

Week	1	2	3	4	5	6	7	8	9	10	11	12
Protocol Observed	GA pre + W pre			GA_1		W_1	GA_2		W_2	GA_3		W_3

GA - Group Alerting Protocols

W - Withitness Protocols

Subscripts 1-3 - Post-training Observation Number

After the initial post-training observation for each module, the teachers were then instructed to teach as if no observers were present during the second and third post-training observations. These last two observations were conducted during the third and sixth weeks after the completion of each. Each teacher then, was observed eight times over the course of the study, four times for the group alerting behaviors and four times for the withitness behaviors. The observations, under such instructions, allowed the researcher to measure the effects of the training over the longer period of time. The observations ranged in time from thirty to sixty minutes with a mean of 50.7 minutes. For the purposes of statistical analysis, all observations were mathematically corrected to forty-five minutes. All classroom observations were conducted by the researcher. Intra-rater reliability was over 90 percent.

RESULTS

The null hypothesis for both modules is that there would be no differences among the four means of teacher frequency of use of each of the ten behaviors. The four means are derived from each of the four observations. Tables 1 and 2 present the means for all four observations. An analysis of

variance with repeated measures (Winer, 1962) was used to analyze the four means for each behavior. The frequencies at which each of the five group alerting behaviors were demonstrated is presented in Table 1.

Table 1.

Means Among the Four Observations on the Group Alerting Behaviors

Behavior	Pre	Post 1	Post 2	Post 3	
	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	F
Questioning Technique					
QT+	3.53	18.60	11.47	13.40	6.85**
Questioning Technique					
QT-[1]	5.80	4.40	2.53	3.60	3.61*
Recitation Strategy					
RS+	1.13	4.67	2.40	3.13	22.74**
Recitation Strategy					
RS-[1]	1.86	.87	.60	.33	6.19**
Alerting Cue					
AC	.33	3.47	.87	.53	13.40**

*$F_{.95}(3,42) = 2.84$

**$F_{.99}(3,42) = 4.31$

[1] Negative behavior; it is desirable to reduce the use of this behavior.

To locate the differences between any pairs of means, the Newman-Keuls procedure was applied (Winer, 1962). The analysis of variance identified significance was reached on all five of the behaviors. For the three positive behaviors, the teachers increased their frequency of use, and the teachers decreased their use of the negative behaviors. The Newman-Keuls revealed that the teachers only showed immediate change. On each behavior, the training was effective in producing change in teacher

performance from the pre-training observation to the immediate (first) post-training observation. The protocols did not produce a lasting effect on teacher performance on four of the five group alerting behaviors. Only on the inappropriate recitation strategy (RS-) did the teachers show a longer-term change in performance that reached significance. The materials were successful in reducing the frequency at which the teachers called on students in a predetermined order. The group alerting materials were successful in producing an immediate change in teacher performance on all five behaviors, but lasting change on only one.

The second set of behaviors are the withitness behaviors. Table 2 displays the means for the four observations of these behaviors.

Table 2

Means Among the Four Observations on the Withitness Module

Behavior	Pre	Post 1	Post 2	Post 3	
	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	F
Desist (D+)	3.60	3.93	3.07	3.60	.61
Desist (D-)[1]	3.67	1.33	1.53	1.47	28.04**
Desc. Desirable Behavior (DDB)	2.00	5.93	2.13	2.33	9.94**
Suggests Alternate Behavior (SAB)	1.07	1.47	.67	1.40	2.01
Concurrent Praise (CP)	.60	1.93	1.67	1.27	2.07

**$F_{.99}(3,42) = 4.31$

[1] Negative behavior; training should lower this score

The training program for the withitness behaviors was partially effective in producing changes in teacher performance. The analysis of variance with repeated measures revealed a significant difference over time on only two of the behaviors: the inappropriate Desist (D-) and Describe Desirable

Behavior (DDB). On both of these behaviors the changes in teacher performance for D- persisted for six weeks; whereas, the change in performance for Describe Desirable Behavior was immediate only.

DISCUSSION

Some of these results are consistent with the findings of Borg (1977). In a study for validating the protocol materials, he found that there were no differences between the experimental and control groups, after training, on the appropriate Desist technique, Suggest Alternate Behavior, and Concurrent Praise. Thus, the findings of this study regarding the short-term effectiveness of these materials replicate the findings of one of Borg's field tests.

It appears that these particular protocols may still have some internal weaknesses relating to their effectiveness. They may be weak in that the behaviors themselves are not credible or valid from the teachers' perspectives. The lack of significant differences over time suggests that the protocol materials are not strong enough to produce lasting change in teacher performance.

These results also support McDonald and Davis' (1978) findings. There were declines over the six weeks of post-training observation in the use of all of the positive behaviors for each of the two modules, and an increase in the frequency on two of the three negative behaviors. The results for the five behaviors in the group alerting module are far more encouraging than the results for the five behaviors of the withitness module. The teachers were, at least, able to demonstrate all five of the group alerting behaviors upon request (immediately after the training). However, as time passed, teacher performance of all but one of the behaviors in this module regressed

toward the pre-training observation frequency. Only the behavior of calling on respondents in a random order (RS-) was maintained over time. The training, then, was only effective in that these teachers showed significant and immediate change in their use of four of the group alerting behaviors. The training did not produce significant changes in teacher performance when the pre-training means are compared to the two delayed post-training observation means at three and six weeks.

It appears, then, that the teachers found these five behaviors easier to learn, as on all five they showed significant changes in performance. Each of the behaviors were discrete units from the teachers' perspectives and therefore could easily be demonstrated. Incorporating these behaviors in their teaching, though, was a more difficult task. There was one significant difference between the pre-training observation and each of the two delayed post-training observations and that was in the use of the inappropriate recitation strategy (RS-). The teachers integrated one of these five behaviors into their repertoire as measured by the observations of their teaching.

It is more difficult to argue a case for the effectiveness of the withitness module. These teachers were not able to demonstrate, on request, three of the four positive withitness behaviors immediately after the training. Those three were: 1) the Postive Desist (D+) technique, 2) Suggest Alternate Behavior (SAB), and 3) Concurrent Praise (CP). There were immediate positive results on the behavior Describe Desirable Behavior. Unfortunately, after an initial significant increase in the frequency at which this behavior was demonstrated, there were marked declines in the frequency of use at the two delayed post-training observations. These teachers could describe a desirable behavior to an off-task student(s) on request, but they did not pursue this practice voluntarily.

The fifth behavior of the withitness module was the inappropriate Desist (D-) technique. The teachers showed a significant decline in use from pre- to post-training observations. They reduced the amount of off-target and late desists from the pre- to both delayed post-training observations. The lack of significant increases in the performance of the other four behaviors in this module reveal that these teachers did not replace the inappropriate desists with the other, more effective behaviors in the training package. It is possible that the teachers were unable to incorporate these other behaviors into their repertoire comfortably and therefore replaced the inappropriate desist technique with silence, ignorance, or some other non-verbal cue, e.g., behaviors that they were using prior to the training and never ceased to use as a result of the training.

It is worth noting that both of the behaviors for which long-term significant change did occur were negative behaviors, and that the teachers decreased in use of these behaviors. This observation suggests that avoiding the use of old behaviors may be an easier behavior for teachers to maintain over time than initiating use of new behaviors. This is a question that could be studied further. In addition, it is important to note that the withitness behaviors, which were originally identified as the more complex behaviors, were in fact more difficult for the teachers to learn. Three of the five withitness behaviors were hardly tested in their classrooms, so that the teachers could not individually assess their effectiveness in reducing student inattention. There may have been a problem in selecting the most appropriate behavior among the positive withitness behaviors, thus creating an uncertain pattern of use. The withitness behaviors also may not have been as discrete to the teachers as

the group alerting behaviors. In many instances, the teachers substituted other effective management techniques that, presumably, they had been using before training, e.g., movement among the students, or asking individual students to bring their work to the teacher. It is similar to the adage, "There is more than one way to skin a cat". In this case, there is 1) the "wrong" way (ineffective management techniques), 2) the "right" way (using these positive behaviors), and 3) "other ways I've always used". The findings suggest that changing teacher performance should focus on overall teacher performance rather than focus on adding to or adjusting existing teacher performance; for instance, a diagnostic and prescriptive approach in which teacher pre-training behavior is assessed and the teacher outlines a strategy for incorporating new behavior into his/her teaching.

The findings of this study are consistent with the findings of Borg (1977), McDonald and Davis (1978); that is, that changing teacher behavior through inservice education is still an issue far from resolved. Based upon the results of this study, presenting theory, providing demonstration, encouraging practice, and offering feedback were not enough to help the teachers transfer the new behaviors into the classroom and incorporate them into their teaching. The failure of the teachers to maintain the new behaviors could be related to any one of these components of the total training package. Further studies need to be conducted from a "what works" approach that would identify factors important to successful inservice training programs.

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